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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,695	08/07/2000	PAUL GRAHAM HOWARTH	A33405	8646
909	7590	07/13/2004		
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102				
			EXAMINER VOLPER, THOMAS E	
			ART UNIT 2665	PAPER NUMBER 10

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/601,695

Applicant(s)

HOWARTH ET AL.

Examiner

Thomas Volper

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicants' arguments filed 16 April 2004 have been fully considered but they are not persuasive.

In response to Applicants' argument that Cloonan fails to disclose a first pipeline stage for receiving a first set of requests and a priority mixer for determining a further set of requests including unsatisfied requests of any of the priority levels, independently of the priority levels, the Examiner respectfully disagrees. Figure 5 clearly shows Pipe₀, controlled by Pipe₀ Controller (24₀), receiving multiple inputs, thus meeting the limitation of a first pipeline stage for receiving a first set of requests. Figure 15 shows that the priority levels of these requests are determined, wherein R' represents a higher priority than R". Cloonan also discloses a second stage, Pipe₁ controlled by Pipe₁ Controller (24₁). As can be seen in Figure 15, this second stage also is able to determine the priorities of input requests. This second stage meets the limitation of a priority mixer to the extent that it is claimed by Applicants.

Applicants' argument fails to overcome the U.S.C. 102(e) rejection of claim 1, thus this action is deemed final.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Cloonan et al. (US 5,724,352).

Regarding claim 1, Cloonan discloses a scheduling means, embodied by controller (20) in Figure 5, that comprises a plurality of pipe controllers (24₀-24₃) to schedule traffic connections through the associated pipes (0-3). The series of pipe controllers in controller (20), with their respective pipes (0-3), represent the first pipeline stage, priority mixer means, and the additional pipeline stages of the present invention. Cloonan discloses that requests have a respective priority, either R' or R'' (col. 22, line 27 – col. 23, line 19), and Figure 15 demonstrates a first set of requests according to priority (see set of requests for Controller 24₀). The Controller 24₁ of Figure 15 acts like the priority mixer of the present invention since it is shown to include additional requests R'_{EFGH,i} and R''_{EFGH,i} that are of different priorities, in addition to those requests not previously satisfied. Controller 24₂ of Figure 15 represents the additional pipe stage of the present invention since it includes additional requests to the set of those requests still not satisfied.

Regarding claim 2, Figure 15 shows a request set $R'_{ABCD,i}$, indicating a single priority, being applied to the first pipe controller at a time $i,6$.

Regarding claim 3, Figure 15 clearly shows that the priority level of requests sets being applied to the first pipe controller varies with time, and that the proportion of time given to each priority level is displayed on the left-hand side of the chart, i.e. time $i,0$ – time $i,7$ for instance.

Regarding claim 4, Figure 5 shows a further pipeline stage, pipe controller 24_3 . Figure 15 shows that this further pipeline stage receives still more additional requests to the set of requests not yet satisfied.

Regarding claim 5, it has been mentioned above that pipe controller 24_1 may act as the priority mixer of the present invention. Figure 5 shows that this controller 24_1 appears before the controller 24_3 , which has been deemed to represent the at least one further pipeline stage of the present invention.

Regarding claims 6 and 7, Cloonan discloses connect vectors that are used to establish connections within the switch fabric (14a) (col. 8, lines 9-59; see also Figure 13D).

Regarding claim 8, Figure 15 demonstrates the first pipeline stage may inhibit some connections from being satisfied because some requests are carried over from the first stage pipeline controller to the next stage pipeline controller.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication, or earlier communications from the examiner should be directed to Thomas Volper whose telephone number is 703-305-8405 and fax number is 703-746-9467. The examiner can normally be reached between 8:30am and 6:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached at 703-308-6602. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Thomas E. Volper



June 30, 2004



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600